

**REMARKS**

By this Amendment, Applicant amends claims 1, 49, 52, 58, and 62. Applicant also adds claims 91 and 92. Therefore claims 1, 33-64, 91, and 92 are all the claims pending in the application.

**Claim Rejections - 35 U.S.C. § 102**

**Claims 1, 33-37, 45, 49, and 58-62 are rejected under 35 U.S.C. § 102(a) as being anticipated by Browne (WO 92/22983).**

Independent claim 1 recites, *inter alia*:

a tuner that receives the transmitted broadcast signal, the transmitted broadcast signal containing data, the data comprising one of first data and second data that is an update of the first data;

a memory, coupled to the tuner, in which at least one of the first data and the second data is stored;

a processor, coupled to the tuner and the memory by signal lines, that processes the received broadcast signal to obtain the data, stores the first data as a database in the memory in response to the tuner receiving the transmitted broadcast signal containing the first data, updates the database with the second data in response to the tuner receiving the transmitted broadcast signal containing the second data, provides a user interface including a set of menus describing the database and for accepting selections from the set of menus, selects data from the database in response to the accepted selections, provides the selected data in digital form, and converts the selected data from digital form to an analog signal.

Applicant respectfully submits that Browne neither teaches nor suggests this combination of features. This is because Browne does not disclose or suggest receiving a “transmitted broadcast signal...containing data...comprising one of first data and second data that is an update of the first data,” storing the “first data as a database,” and updating “the database with

the second data.” Instead, Browne discloses storing and removing programs in a storage section 104 of a multi-source recorder player 100 on a “FIFO basis” (see Browne, p. 7, ll. 9 - p. 8, l. 5).

More specifically, received a program is temporarily stored in a FIFO buffer 104c (see Browne, p. 7, ll. 26-29). Upon a user’s selection, or using neural network analysis, the program may be stored in the storage section 104 (see Browne, p. 7, ll. 29-33). The program is not actually moved from the FIFO buffer 104c to the storage section 104, but instead the program is simply added to a stored program list 600, which is a list of the programs stored in the storage section 104 (see Browne, p. 7, l. 33 - p. 8, l. 10). In this fashion, the program is stored in the storage section 104 and the program is referenced through a linked list in FIFO order.

Browne also discloses how programs are removed from the storage section 104. In particular, when a first program in the storage section 104 is discarded, a next program in the linked list becomes the first program (see Browne, p. 8, ll. 10-14). Browne additionally discloses a program erasure section 301 that controls how programs are erased from the storage section 104 (see Browne, FIG. 3, p. 18, l. 29 - p. 19, l. 5). For example, if additional storage is required, the oldest available program in the storage section 104 is erased (see Browne, p. 19, ll. 6-12). Alternatively, some programs may be “locked” (*i.e.*, protected), and will not be automatically erased when storage capacity of the storage section 104 is reached (see Browne, p. 19, ll. 12-18). Still further, only programs that have been viewed may be erased (see Browne, p. 19, ll. 19-22) or erasure may be entirely controlled by a user’s input (see Browne, p. 19, 25-30).

Accordingly, Browne discloses how programs are stored to and erased from the storage section 104 on a FIFO basis. There is no teaching or suggestion of receiving a “transmitted broadcast signal...containing data...comprising one of first data and second data that is an update of the first data,” storing the “first data as a database,” and updating “the database with the second data.” Rather, Browne simply discloses storing programs according to a date, time, and frequency set by a user (*see e.g.*, Browne, FIGS. 5A-E, p. 23, ll. 5-33) and erasing the programs on a FIFO basis when capacity of the storage section 104 is reached.

As a result, Applicant respectfully submits that Browne fails to teach or suggest the combination of features recited in claim 1. Therefore, Applicant respectfully submits that claim 1 and its dependent claims would not have been anticipated by Browne for at least these reasons.

To the extent independent claim 58 recites features similar to those discussed above regarding claim 1, Applicant respectfully submits that claim 58 and its dependent claims also would not have been rendered unpatentable by the combination of Yoshio and De Bey for at least reasons analogous to those discussed above regarding claim 1.

**Claim Rejections - 35 U.S.C. § 103**

**Claims 1, 33-44, 52, 54-56, 58-62, 67, 69, and 76 are rejected under 35 U.S.C. § 103(a) as being unpatentable over De Bey (WO 99/03112) in view of Yoshio et al. (JP 04-310631).**

Again, independent claim 1 recites, *inter alia*:

a tuner that receives the transmitted broadcast signal, the transmitted broadcast signal containing data, the data comprising one of first data and second data that is an update of the first data;

a memory, coupled to the tuner, in which at least one of the first data and the second data is stored;

a processor, coupled to the tuner and the memory by signal lines, that processes the received broadcast signal to obtain the data, stores the first data as a database in the memory in response to the tuner receiving the transmitted broadcast signal containing the first data, updates the database with the second data in response to the tuner receiving the transmitted broadcast signal containing the second data, provides a user interface including a set of menus describing the database and for accepting selections from the set of menus, selects data from the database in response to the accepted selections, provides the selected data in digital form, and converts the selected data from digital form to an analog signal.

Applicant respectfully submits that the combination of De Bey and Yoshio would not have rendered claim 1 unpatentable. This is because neither De Bey nor Yoshio, taken alone or in combination, discloses or suggests receiving a “transmitted broadcast signal...containing data...comprising one of first data and second data that is an update of the first data,” storing the “first data as a database,” and updating “the database with the second data.”

De Bey is directed to a video-on-demand system in which a scheduling and routing computer 30 responds to a subscriber’s request for on-demand video by retrieving the requested video (see e.g., De Bey, p. 8, ll. 3-6, p. 10, ll. 5-8) from storage devices 14, 16, 18 (see e.g., De

Bey, p. 7, ll. 10-12, p. 10, ll. 6-8), schedules transmission of video segments of the retrieved video (*see e.g.*, De Bey, p. 8, ll. 8-10, p. 10, ll. 13-16), and transmits the video segments to the user's receiver 22, 40 according to the scheduling (*see e.g.*, De Bey, p. 8, ll. 9-14, p. 10, ll. 16-18). The receiver 22, 40 receives the video segments and stores the video segments in a buffer 42 for viewing by the user (*see e.g.*, De Bey, p. 10, ll. 31 - p. 11, l. 9). There is no teaching or suggestion that the receiver 22, 40 in De Bey updates "the database with the second data." At best, the receiver 22, 40 in De Bey only receives an on-demand video and stores the video in the buffer 42.

Yoshio does not concern updating data stored in a database with updated data in any respect. Instead, Yoshio simply discloses receiving data using a receiver, storing the data to a disk using a recording device, and reproducing the data on the disk at a separate playback device (*see e.g.*, Yoshio, 2<sup>nd</sup> translation, p. 23, ¶ 5).

Accordingly, Applicant respectfully submits that, even if De Bey and Yoshio could have somehow been combined, the combination of Yoshio and De Bey would still fail to teach or suggest the combination of features recited in claim 1.

Further, as discussed above, De Bey is directed to a video-on-demand system in which a scheduling and routing computer 30 responds to a subscriber's request for on-demand video by retrieving the requested video (*see e.g.*, De Bey, p. 8, ll. 3-6, p. 10, ll. 5-8). Applicant respectfully submits that the skilled artisan would not understand an on-demand signal to be a "broadcast signal." At best, the on-demand signal in De Bey is sent to the subscriber. Moreover,

the skilled artisan would not have modified De Bey based on Yoshio to receive a broadcast signal. The system in De Bey stores video on storage devices (*see e.g.*, De Bey, p. 7, ll. 10-12, p. 10, ll. 6-8). However, to provide on-demand access to broadcast services, the skilled artisan would understand that De Bey would require unlimited storage in which to store the broadcast data, as broadcast data is continuously generated by various sources.

Therefore, Applicant respectfully submits that claim 1 and its dependent claims would not have been rendered unpatentable by the combination of Yoshio and De Bey for at least these reasons.

To the extent independent claim 58 recites features similar to those discussed above regarding claim 1, Applicant respectfully submits that claim 58 and its dependent claims also would not have been rendered unpatentable by the combination of Yoshio and De Bey for at least reasons analogous to those discussed above regarding claim 1.

**Claims 1, 33-37, 49, 52, 54-56, 58-61, and 69 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lang (U.S. Patent 5,057,932) in view of Yoshio.**

Independent claim 1 recites, *inter alia*:

a tuner that receives the transmitted broadcast signal, the transmitted broadcast signal containing data, the data comprising one of first data and second data that is an update of the first data;

a memory, coupled to the tuner, in which at least one of the first data and the second data is stored;

a processor, coupled to the tuner and the memory by signal lines, that processes the received broadcast signal to obtain the data, stores the first data as a database in the memory in response to the tuner receiving the transmitted

*broadcast signal containing the first data, updates the database with the second data in response to the tuner receiving the transmitted broadcast signal containing the second data,* provides a user interface including a set of menus describing the database and for accepting selections from the set of menus, selects data from the database in response to the accepted selections, provides the selected data in digital form, and converts the selected data from digital form to an analog signal.

Applicant respectfully submits that the combination of Lang and Yoshio would not have rendered claim 1 unpatentable. This is because neither Lang nor Yoshio, taken alone or in combination, discloses or suggests receiving a “transmitted broadcast signal...containing data...comprising one of first data and *second data that is an update of the first data*,” storing the “first data as a database,” and updating “the database with the second data.” Instead, Lang merely discloses storing received programs and transferring the programs to a remote location or a hard copy magnetic media (see e.g., Lang, Abstract).

More specifically, Lang describes an audio/video recorder editor/transceiver 10 (VCR-ET) having a memory 13 (see Lang, col. 3, ll. 41-50). At best, Lang describes that an input signal from a conventional source is received and stored in memory (see Lang, col. 7, ll. 26-29, col. 8, ll. 30-33). The data in the memory may be sent to a receiver 22 (see Lang, col. 10, ll. 52-53) or recorded onto media 23, and reloaded into the memory 13 for playback at a future time (see Lang, col. 9, l. 65 - col. 10, l. 10). There is no teaching or suggestion that the VCR-ET 10 in Lang updates “the database with the second data.” At best, the receiver 22, 40 in De Bey only receives an video and stores the video in the memory 13.

As previously discussed, Yoshio does not concern updating data stored in a database with updated data in any respect. Instead, Yoshio simply discloses receiving data using a receiver, storing the data to a disk using a recording device, and reproducing the data on the disk at a separate playback device (*see e.g.*, Yoshio, 2<sup>nd</sup> translation, p. 23, ¶ 5).

Accordingly, Applicant respectfully submits that, even if Lang and Yoshio could have somehow been combined, the combination of Lang and Yoshio would still fail to teach or suggest the combination of features recited in claim 1. Therefore, Applicant respectfully submits that claim 1 and its dependent claims would not have been rendered unpatentable by the combination of Lang and Yoshio for at least these reasons.

To the extent independent claim 58 recites features similar to those discussed above regarding claim 1, Applicant respectfully submits that claim 58 and its dependent claims also would not have been rendered unpatentable by the combination of Lang and Yoshio for at least reasons analogous to those discussed above regarding claim 1.

**Claims 38-57, 63, 64, 67, 68, 76 are rejected, in one form or another, over various combinations of De Bey, Browne, and Lang in view of Yoshio, Official Notice, Rovira (WO 92/10040), Ryan (U.S. Patent 5,590,195), Myers et al. (U.S. Patent 5,272,752), Guenther et al. (U.S. Patent 5,086,510), Benbassat et al. (U.S. Patent 4,700,322), Whitby et al. (GB 2,258,102), and Date (“An introduction to Database Systems”).**

Applicant respectfully submits that the cited references to Rovira, Myers, Guenther, Benbassat, Whitby, and Date, as well as the taking of Official Notice, fail to cure the deficient

disclosures of De Bey, Browne, Lang, and Yoshio. Accordingly, Applicant respectfully submits that claims 38-57, 63, 64, 67, 68, and 76 are patentable.

To the extent the Examiner rejects claim 63 over Ryan, Applicant respectfully submits that this application is a continuation of U.S. 08/769,092, which is a divisional of U.S. 08/181/394, which is the cited reference to Ryan. **Accordingly, Ryan '195 is not available as prior art against the present application.**

**New Claims**

As discussed above, Applicant adds new claims 91 and 92. Claim 91 recites, *inter alia*, “a tuner that continuously receives the transmitted broadcast signal,” which is at least discussed at page 7, line 24, to page 8, line 7, of the filed specification. Applicant respectfully submits that the cited references at least fail to teach or suggest “a tuner that continuously receives the transmitted broadcast signal.” For example, De Bey only discloses a receiver 22, 40 that receives *on-demand* video segments from a computer 30 according to a scheduling algorithm in response to a user’s request for the on-demand video. There is no teaching or suggestion of continuously receiving a transmitted broadcast signal. Similarly, Yoshio only discloses receiving data during “late-night TV broadcast off-air time” so that audio information is “delivered...by the next morning” (see Yoshio, 2<sup>nd</sup> translation, p. 27, ¶ 13), and moving the “disk having recorded new information...to a compact optical disk playback device” (see Yoshio, 2<sup>nd</sup> translation, p. 28, ¶ 14). Further, Browne only discloses storing programs according to a date, time, and frequency set by a user (see e.g., Browne, FIGS. 5A-E, p. 23, ll. 5-33).

Accordingly, the cited references at least fail to contemplate “a tuner that continuously receives the transmitted broadcast signal.”

Claim 92 recites, *inter alia*, “the broadcast signal is transmitted by a source not in response to a request from the receiver.” As discussed above, De Bey only discloses a receiver 22, 40 that receives on-demand video segments from a computer 30 according to a scheduling algorithm in response to a user’s request for the on-demand video. Applicant respectfully submits that any modification of De Bey’s on-demand system to receive a “broadcast signal... not in response to a request from the receiver” would require a complete reworking of De Bey, as De Bey simply discloses requires the user requesting particular video, receiving the requested video, storing the received video in a buffer, and reproducing the video in an on-demand fashion.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.116  
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Respectfully submitted,

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